

### Remarks

In the Office Action dated July 15, 2003 in the above-identified patent application, a restriction requirement was imposed against claims 1-19 as originally filed and pending in the application.

According to Russel, there are seven distinct patentable sequences defined in claims 5 and 6, and thus are separate and distinct sequences and inventions.

The sequences include:

1. For import into the ER  $H_3N^+$ -Net-Met-Ser-Phe-Val-Ser-Leu-Leu-Leu-Val-Gly-Ile-Leu-Phe-Trp-Ala-Thr-Clu-Ala-Clu-Gln-Leu-Thr-Lys-Cys-Glu-Val-Phe-Gln; (SEQ ID NO: 2)
2. For reimport into the ER  $H_2N$ -Lys-Asp-Glu-Leu-COO<sup>-</sup>; (SEQ ID NO. 3)
3. For import into mitochondria  $H_3N^+$ -Met-Leu-Ser-Leu-Arg-Gln-Ser-Ile-Arg-Phe-Phe-Lys-Pro-Ala-Thr-Arg-Thr-Leu-Cys-Ser-Ser-Arg-Tyr-Leu-Leu; (SEQ ID NO: 4)
4. For import into the nucleus Pro-Pro-Lys-Lys-Lys-Arg-Lys-Val; (SEQ ID NO: 5)
5. For import into the nucleus  $H_3N^+$ -Pro-Lys-Lys-Lys-Arg-Lys-Val-(=nuclear localization sequence from SV4Q-T antigen); (SEQ ID NO: 6)
6. For import into peroxisomes  $H_2N$ -Ser-Lys-Leu-COO<sup>-</sup>; (SEQ ID NO. 7) and
7. For binding to cell membrane  $H_3N^+$ -Gly-Ser-Ser-Lys-Ser-Lys-Pro-Lys. (SEQ ID NO. 8).

The presently claimed invention relates to modularly assembled conjugates composed of a transport mediator for the cell membrane "P", and address peptide "AP" and an active substance to be transported "W". The common inventive concept of the invention is to provide conjugates that are able to penetrate the cell membrane, which is mediated by the transport mediator "P", and afterwards, to direct the active substance "W" to its target compartment which is mediated by the address peptide "AP". The technical relationship linking the sequences claim 5 and 6 is that they are all encompassed by the term "AP." All the sequences (SEQ ID NOs. 2-8) have the same technical function, namely, to transport the active substance into a cell compartment. The selection of the sequence for the address peptide depends only on the targeted compartment within the cell for the used active substance, but not on the object "W" of the delivery. Thus, the

claims relate to only one invention forming a single general inventive concept. Hence the way of delivery and the mode of action are the same for all conjugates independent from which sequence is chosen for the address peptide.

According to the Office, "[s]earching all of the claimed sequences would constitute an undue burden on the examiner because different sequence searches would be required for each of the claimed sequences." Even if the Office, contends that each sequence represents an independent and distinct invention, the Commissioner in 1996 partially waived the requirements of 37 CFR 1.141 and now permits a reasonable number of sequences to be claimed in a single application. Although the decision by the Commissioner related to distinct nucleotide sequences, his decision to allow up to ten sequences to be examined in one application is applicable to the present situation. His decision to waive the requirements of 37 CFR 1.141 was in response to a need in the biotechnology industry to protect its intellectual property without requiring the filing of seven (7) different applications, such as in this situation, while not creating undue burden on the Office. **Clearly it is not an undue burden on the Office to run seven amino acid sequences through a BLAST program offered free on the web.**

The courts have recognized that it is in the public interest to permit an applicant to claim several aspects of his/her invention together in one application, as the applicant has done herein. The CCPA has observed:

We believe the constitutional purpose of the patent system is promoted by encouraging applicants to claim, and therefore to describe in the manner required by 35 U.S.C. §112 all aspects as to what they regard as their invention, regardless of the number of statutory classes involved. *In re Kuehl*, 456 F.2d 658, 666, 117 U.S.P.Q. 250, 256 (CCPA 1973).

This interest is consistent with the practical reality that a sufficiently detailed disclosure supporting claims to one aspect of an invention customarily is sufficient to support claims in the same application to other aspects of the invention.

It is vital to all applicants that restriction requirements issue only with the proper statutory authorization, because patents issuing on divisional applications that are filed to prosecute claims that the Office held to be independent and distinct can be vulnerable to legal challenges alleging double patenting. The third sentence of 35 U.S.C. §121, which states that a patent issuing on a parent application "shall not be used as a reference" against a divisional application or a patent

issued thereon, does not provide comfort to an applicant against such allegations. The Court of Appeals for the Federal Circuit has declined to hold that §121 protects a patentee from an allegation of same-invention double patenting, *Studiengesellschaft Kohle mbH v. Northern Petrochemical Co.*, 784 F.2d 351, 355, 228 U.S.P.Q. 837, 840 (Fed. Cir. 1986); and in *Gerber Garment Technology Inc. v. Lectra Systems Inc.*, 916 F.2d 683, 16 U.S.P.Q. 2d 1436 (Fed. Cir. 1990) wherein the court held that §121 does not insulate a patentee from an allegation of "obviousness-type" double patenting, and in fact affirmed the invalidation on double patenting grounds of a patent that had issued from a divisional application filed following a restriction requirement. Furthermore, it is far from clear that the step of filing a terminal disclaimer is available to resolve a double patenting issue that arises after the issuance of patent on the divisional application.

All these considerations indicate that the imposition of a restriction requirement with inadequate authority can lead to situations in which an applicants' legitimate patent rights are exposed to uncertainty and even extinguished. Accordingly, to protect a patentees' rights and to serve the public's interest, the Office should not to require restriction in cases, such as the present application, wherein various aspects of a unitary invention are claimed.

In view of the above discussion, applicants request that all sequences be examined under the same inventive concept for unitary examination and further prosecution. In the event the requirement is adhered to, applicants provisionally elect with traverse, the invention of **SEQ ID NO: 6** for further examination on the merits.

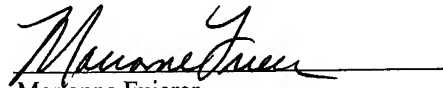
#### **Fees Payable**

The addition of new claim 20 does not increase the number of total claims beyond the number for which payment was previously made. Nevertheless, if any fee or charge is deemed properly payable in connection with the entry of this Amendment, the United States Patent and Trademark Office is hereby authorized to charge any payment necessary to the entry of this Amendment, to Deposit Account No. 08-3284 of Intellectual Property/Technology Law.

#### **CONCLUSION**

It therefore is requested that examination and prosecution proceed on the merits, consistent with this Response. In the event that any issues remain, Examiner Russel is requested to contact the undersigned attorney at (919) 419-9350 to resolve same.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read 'Marianne Fuierer', followed by a horizontal line.

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